Citizens' Bulletin

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The Connecticut Department of Environmental Protection

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Cover Robin - - detail of water color by Rex Brasher

Contents

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New service offers help to recreation programs

By Jenny Mead, Massachusetts Audubon Intern

Situation: A town has 100 acres of undeveloped land on which it would like to create a new park.

Or, perhaps, a small town would like to beef up an ailing parks and recreation program.

Where do these towns turn for information, technical advice, and assistance?

As of February 1980, they could turn to the DEP's newly established Connecticut State Park and Recreation Advisory Service. Created in response to requests from communities around the State, this service was instituted to provide organizations and individuals with information, resources, and technical assistance in the fields of recreation, parks, and leisure activities.

Hand in hand with this new service came a new position — Recreational Resource Coordinator — filled by Robert P. Dlugolenski. Dlugolenski has a degree in recreational service education from the University of Connecticut and has served as Assistant Director of Recreation for the Town of Branford and as Director of Parks and Recreation for the Town of North Haven. An active member of the Connecticut Recreation and Park Association and its President in 1977, he is currently a member of the Association's Executive Board and a representative to the New England Regional Council of the National Recreation and Park Association.

What exactly is the purpose of the Advisory Service? The list of duties is long, but the general theme is the same: to help create and improve recreation and park programs. To do this, the service helps State, local and federal agencies, private groups, municipalities, and commercial recreation enterprises in establishing parks, planning services, and evaluating and improving programs. It disseminates information about recreation services, makes recreational job referrals, and plans workshops and conferences. Its concerns range from park posters and handout information to advice on establishing parks and recreation boards or commissions within towns.

Dlugolenski is developing a resource library on parks and recreation. The service produces "surveys, studies, and reports which will provide certain types of information that benefit communities and will be making this kind of information available to communities."

A particular concern of Dlugolenski's is helping small towns which do not have parks and recreation departments. In Connecticut, there are about 103 towns that do have such staffs, either full or part-time. According to Dlugolenski, that leaves approximately 66 towns which do not have departments but do have parks and recreation boards composed of laymen who are responsible for limited parks and recreation programs. Should these towns need assistance in their existing programs or in developing a department, Dlugolenski says, "We want to gather information and find out exactly where we can assist."

Although the new service "caters to the towns," Dlugolenski says that no requests for information are refused. Rather, any and all inquiries are welcome. Despite the thrust towards working with municipal park and recreation professionals, much of the work involves YMCAs, YWCAs, and small local organizations. "One immediate goal ," says Dlugolenski, "is to have communities in the State develop a closer relationship with the State." He thinks that the State can provide a great many resources that towns are not aware of.

Brasher: bookie who loved birds

From 50 to 1 win to a world-famous art collection

By John Waters

Rosemary Gutbrod

Painting of Rex Brasher hangs in Harkness mansion.

Winning at 50-to-1 odds, a horse named "Knight of the Garter" at Belmont put $11,000 into the pockets of a young man who liked to do watercolors of birds and played a part in a sequence of events which has ultimately made a Connecticut State park the home of a world-famous collection of 874 bird paintings that some experts consider better and more accurate than Audubon's and equal, or superior, to those of Aggassiz and Fuertes.

The park is the Harkness Memorial State Park on Goshen Point in Waterford, about five miles southwest of New London. The lucky bettor was Rex Brasher, born in Brooklyn, N.Y., in 1869, but long a resident of Connecticut. His stockbroker father, an amateur ornithologist, once observed that nobody had ever painted all the kinds of birds in North America. Rex, then still a child, announced that he would do so. And he did . . . confidently starting the job when he was 20 and finishing it 40 years and 1,775 paintings later in 1929. In the interim, he had settled in lonely Chickadee Hollow on the Connecticut side of the New York border, near Kent.

The Wandervogel years

Young Brasher was so obsessed with his project that he found it impossible to remain in a steady job. He hopscotched from Tiffany's, where he was an apprentice engraver, to short-term stints as a wheatfield worker, a village handyman, a Gloucester fisherman, and even a bookie. He worked in this way most of his life, taking any kind of job and keeping it only until he had saved enough money to go back to full-time bird study and painting until he was broke again.

His long-shot winnings at the track staked him to a few years of uninterrupted painting. After painting 400 bird pictures, he decided they didn't meet his perfectionist standards, so he calmly burned all but 10 of them and started over. Five years later, he had finished another 500. These didn't please him either, so into the flames they went. In painting them, however, he discovered the techniques that distinguish his work, so he started from scratch again.

By the time he finished, decades later, there were 874 paintings that satisfied him, and these are the masterpieces that form the Harkness Memorial State Park collection. They accurately depict, in 3,000

figures, every one of the 1,201 species and subspecies of North American birds in their native habitats. All are shown in actual size, except very large birds which are shown in three-quarter size.

To accomplish this prodigious feat, Brasher tramped and camped in the wilds of all parts of North America. He bought a sloop so that he could sketch water birds. He also used stuffed birds as models if necessary.

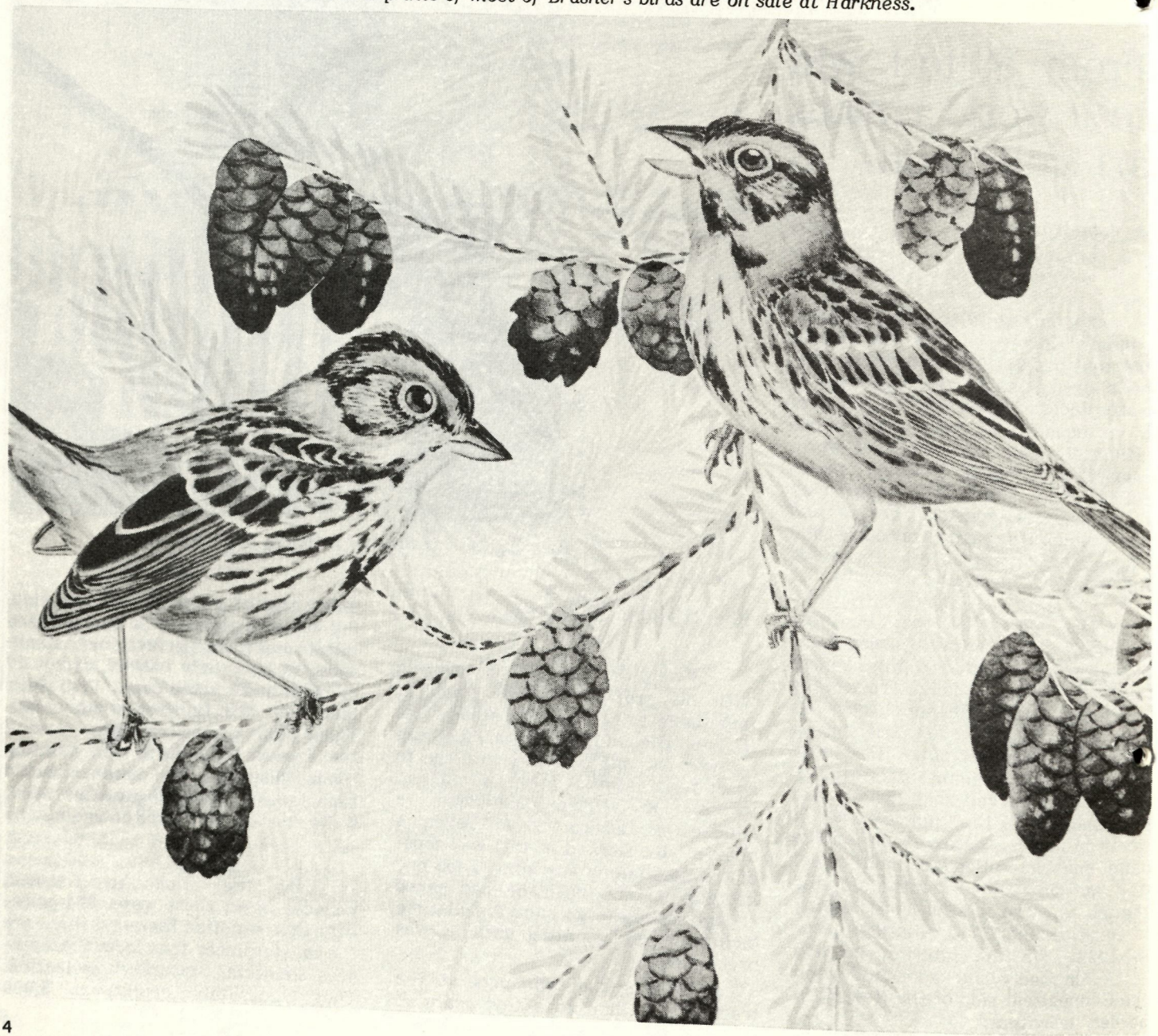
His travels in the wilds and the swamps exposed him to considerable danger, very often from flies. In 1941, he told an interviewer that he literally had almost been eaten alive by huge black flies in Ontario; in Florida, he was attacked by vicious greenheads (flies) an inch long. Bleeding profusely all over his body, he was just about able to crawl back to his boat in time. The next day, one of the natives told him that greenheads had eaten up one of his mules.

Collectors' items

In the course of studying bird habitats, Brasher became an expert on North American trees. As a result, he was able to privately publish a limited (100 sets) subscription edition of his 12-volume Birds and Trees of America priced at $1,200 per set in 1929 -- the year of the Wall Street Crash.

Each set contained the 874 pictures, printed in black-and-white because to reproduce them by color printing would have cost about half a million dollars. Instead, Brasher personally colored every picture in every set by hand, using an artist's air brush. Since 95 sets were ultimately sold, this meant coloring about 83,000 illustrations, using his watercolor of each subject as a guide. In later years, a complete set would sell for

Song sparrow: detail. Black-and-white prints of most of Brasher's birds are on sale at Harkness.



$12,000. A four-volume version of this authoritative work was issued in 1961.

In 1941, the State of Connecticut offered Brasher $74,900 for the 874 original paintings, intending to build a suitable gallery for them in Kent Falls State Park. Even though a private collector had offered him $100,000, he accepted the lower figure because he thought more people would see and enjoy his paintings if the State owned them. Ironically, the appropriation for the Kent Falls gallery never materialized, and the paintings were stored in the basement of the State Library in Hartford for almost 12 years.

From basement to mansion

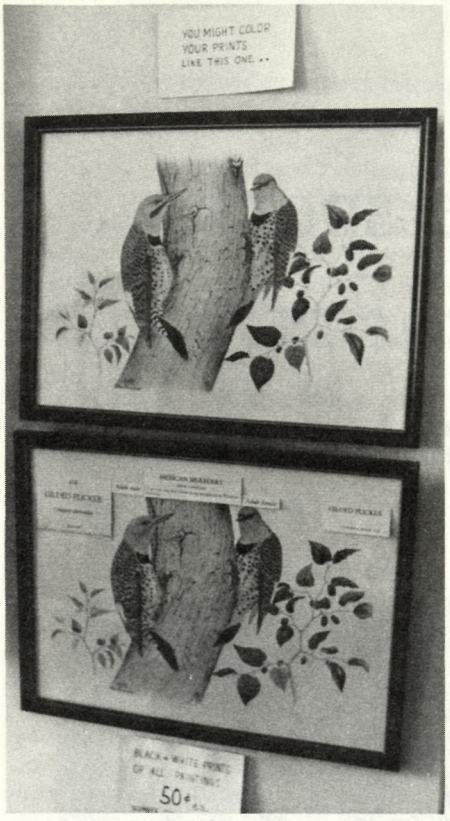
Then Mrs. Edward S. Harkness died, leaving her splendid mansion in Waterford to the State. The house offered a magnificent setting for the paintings, so they were moved there, with Charles C. Cunningham, director of the Wadsworth Atheneum in Hartford, responsible for transporting and displaying them safely.

Cunningham warned against displaying the full collection at one time because watercolors fade if exposed to light too long. That is why, during the months that the Harkness mansion is open to the public, only 25 percent of the pictures are shown at one time. In the course of each summer, half the pictures get shown in this manner.

A character

The formal opening of the mansion as the home of the paintings took place with great excitement and great ceremony on May 30, 1953. Everyone expected that this would be Brasher's shining hour: recognition at last for a dedicated life. They were wrong. He didn't show up. He is reported to have said, "Why should I go to Waterford? To see my own work? I know every feather on every bird in every picture." And that was that.

Apparently Brasher was a bit of a character in other ways. A newspaperman reported that despite long residence in Connecticut, Brasher used his native Brooklyn pronunciation of "ir" as "oi," which would produce "choiping boids." But the reporter admitted to having a feeling that Brasher had been pulling his leg.



Color washes can make a print into an attractive facsimile.

Brasher told another interviewer that the hardest time he ever had in getting close enough to study a bird was not in some distant swamp or thicket. It was right in his own neighborhood near Kent. The bird was a grasshopper sparrow. It took him five years to catch up with it because, like a grasshopper, it lives on the ground and is not easily spotted.

Although the chickadee was his favorite bird, the bird he admired most was the hummingbird. He had seen a hummingbird, which weighs about as much as a penny, gamely attack weasels and crows. He said, "If a man were as efficient as a hummingbird, he could fly the Atlantic on one gallon of gas."

Brasher died at the age of 91 in New Milford, a celebrity and a giant in the world of art.

Display at Harkness

The Harkness mansion in Harkness Memoral State Park opens the first weekend before Memorial Day and is open daily from then through Labor Day. Hours are 10 to five on weekdays, and 10 to seven on Saturday, Sundays, and holidays. The grounds of the estate are open from eight a.m. until sunset. Admission is one dollar per car at the park entrance when the mansion is open. The rest of the time it is free.

A leaflet describing the park is available free. Write to: Parks & Recreation, Room 265, 165 Capitol Avenue, Hartford, CT 06115. Phone: 566-2304. ■

About half the 874 paintings are shown each summer in the mansion.

Rosemary Gutbrod

Bred for the sport of hunting

By Peter Bogue, Supervisor, Wildlife Recreation Management, DEP Wildlife Unit

German wire-haired pointer/John Gaffney, Cromwell

Hunting with dogs dates back over 12,000 years. The first dogs aided early man in securing the wild game which was a primary source of food. Practically all breeds of dogs today possess the instinct to hunt, but not all have been developed for that purpose. Although hunting has changed over the years, the dog still plays an important role in today's sport. The best conservation tool available to the modern sportsman is his loyal hunting companion . . . his dog.

For the hunting of nearly every species of bird or mammal, there exists a dog "specialist." Specialization has come through training, development of certain physical characteristics, and the utilization of the natural instincts of certain breeds of dogs. For instance, pointing breeds and spaniels do better hunting upland game birds, retrievers make better waterfowl dogs, and hounds excel in the pursuit of various small game mammals.

Today, over a hundred breeds of dogs are recognized by the American Kennel Club (AKC), a private organization which registers purebred dogs and groups them according to their functions. This group also monitors official field trials and competitions held throughout the country.

There are 24 sporting breeds (plus hounds) currently recognized by the AKC. This category includes all bird or gun dogs which are commonly used for hunting.

AKC - SPORTING DOGS (not including hounds):

- Pointer - English
- Pointer - German short-haired
- Pointer - German wire-haired
- Retriever - Chesapeake Bay
- Retriever - golden
- Retriever - flat-coated
- Retriever - curly-coated
- Retriever - Labrador
- Setter - English
- Setter - Gordon
- Setter - Irish
- Spaniels - American water
- Spaniels - Brittany
- Spaniels - clumber
- Spaniels - cocker
- Spaniels - English cocker
- Spaniels - English springer
- Spaniels - field
- Spaniels - Irish water

Spaniels - Sussex
Spaniels - Welsh springer
Vizsla
Weimaraner
Wirehaired pointing griffon

The breeds classed as sporting dogs are subdivided into three categories according to the manner in which they hunt in the field. The American game-bird hunter has a wide choice of "specialists" to choose from whether he wants a pointing breed, a retriever, or a spaniel. The pointing breeds presently outnumber all others used in hunting today.

English setter / Dennis DeCarli, Haddam

Pointing breeds

These dogs assist the hunter in the field by stopping or pointing when they scent the presence of game. These dogs usually cover a lot of ground when searching but will hold on point and allow the hunter to pass and flush any game present. Dogs may also be required to retrieve game which has been shot.

The English setter was the first pointing gun dog to be used in this country. English setters are used extensively in our State for the hunting of ring-neck pheasants. Another excellent dog used for bird hunting is the English pointer. This breed has won high honors at field trials throughout the State. Irish setters were once a popular bird dog but they have given way to breeds such as the English setter and pointer. Their dark color makes them difficult dogs to locate in dense cover.

Blue tick coon hound / James Czepiel, Higganum

The Gordon setter was once used exclusively for grouse and woodcock throughout the East. It is now seldom seen afield but is a prime contender in bench competitions. The German short-haired pointer is a newcomer to the American game fields. It is an excellent companion and close worker in the field but perhaps a little slower than the English setter and pointer. The Brittany spaniel is another recent import to our country. This dog covers enough territory for the average hunter and is the only "pointing" spaniel. The Weimaraner is another pointing dog of German origin. It makes a top notch dog for hunting and field trial work.

Retrieving breeds

Dogs in this group assist the hunter by fetching or retrieving game shot over land or water. Their strong physical builds and obedient behavior make them excellent dogs for waterfowl hunting.

The Chesapeake Bay retriever is one of the few purely American developed breeds. For many years it outnumbered all other retrievers used in waterfowl hunting. The Labrador retriever has gained popularity primarily because of its excellent disposition and field performance. The golden retriever is another breed which has attracted the avid waterfowler's eye. The curly-coated and flat-coated retrievers are very popular in England. Another purely American product is the American water spaniel, the smallest of the retrieving breeds. Its strong swimming abilities make it ideal in rough water. Believe it or not, the poodle possesses excellent retrieving abilities and was originally used as a sporting dog.

While all retrieving breeds have been developed for water work, they also are used in upland game bird hunting.

Flushing breeds

This group of dogs include all the spaniels with the exception of the Brittany spaniel. These dogs search for game in the underbrush and flush game when located. They work within range of the hunter and are required to retrieve on command.

Many upland bird hunters, especially pheasant hunters, have used the English springer spaniel to a great extent. This versatile breed is considered an all-around dog for both waterfowl and upland game. Its physical characteristics make it excellent for searching through thick brush and retrieving waterfowl in inland waters. The clumber, Sussex, Welch springer and field spaniels have never caught the fancy of the American sportsman but are used extensively in England. The cocker spaniel is another popular pure-breed that has been used in hunting. Due to its good disposition and beauty, it now is kept extensively as a pet and show dog.

Pointers and Setters

Other hunting dogs

In addition to the pointers, retrievers, and spaniels, scent hounds are equally important in the sport of hunting. These dogs follow the trail of scent left by small mammals such as rabbits, foxes, and raccoons.

The wide distribution and abundance of rabbits in many states provides many opportunities to enjoy rabbit hunting, and a youngster's first encounter with hunting is commonly in pursuit of the "cottontail" with a beagle as his companion. Beagles and bassett hounds are the most commonly used.

Probably America's oldest sporting dog is the foxhound. Originally fox hunting was not considered a sport but rather a means to eliminate the fox from certain areas. Today, fox hunting in the formal English manner is one of the most glamorous dog sports to witness.

Coon hunting has long been a thrilling and profitable sport enjoyed by many. Some of the "coon dogs" used include the black and tan coonhound, bluetick, redbone and English treeing walker.

In every era, the hunting dog has played an important role in the sport. Reference has not been made to every breed currently available to the American sportsman. Personal preference, sporting needs, and style all influence the particular breed of dog which is chosen as a hunting companion. A sportsman hunting without a dog has definitely not gotten the fullest measure of pleasure from his sport.

It is also worth repeating that dogs can prevent the waste of a large amount of game which would never be recovered by the hunter alone. It has been said many times that the dog is the only hunting companion who pays his way.

Labrador retriever / Thomas Hoehn, Killingworth

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Davis, Henry P. The New Dog Encyclopedia, Stackpole Co., Harrisburg, Penn., 1970. ■

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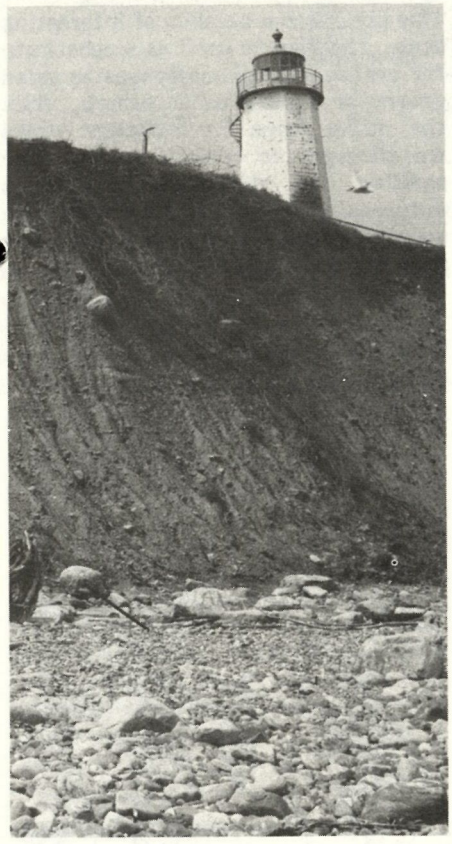
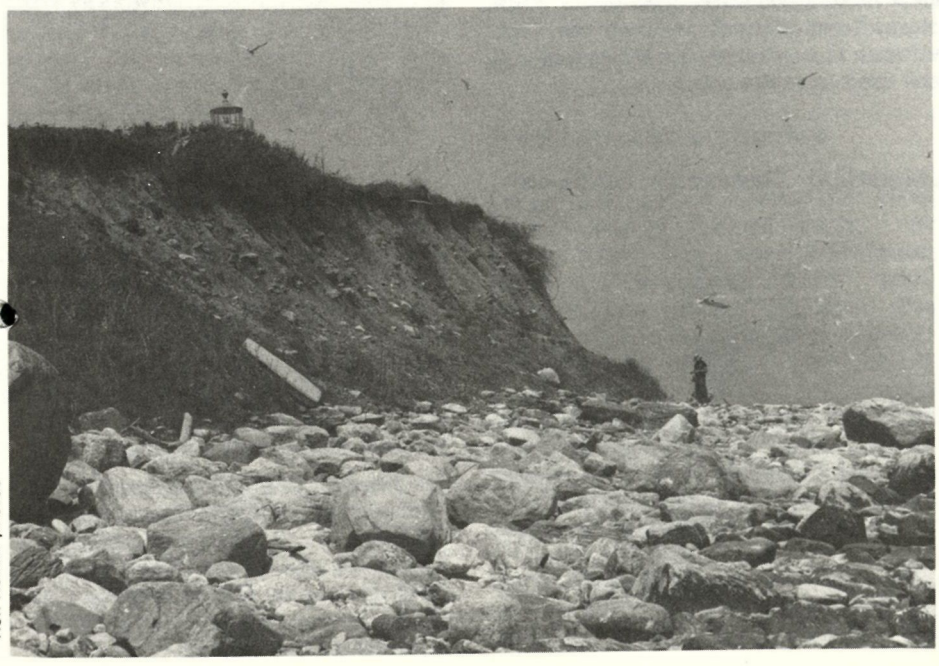
CAM NEWS



Falkner's Island revisited



Ron Rozsa photos

Falkner's island, located a few miles off Guilford, harbors one of the largest roseate tern populations on the East Coast (see May 1979 issue of Citizens' Bulletin). Once the site of a functioning navigation lighthouse, and still owned by the U.S. Coast Guard, the island is an important wildlife refuge because of its unique function as a breeding colony for the rare roseate tern and the common tern. Although this island is publicly-owned, access is restricted and a guard posted during the tern breeding season to ensure their protection and continued propagation. ■

Lighthouse still stands, above left. Terns lay their eggs on these rocky beaches, below left. They nest only on deserted areas, relying on camouflage to hide unprotected eggs. Right, common tern eggs on Falkner's Island.

A naturalist looks at a lawn

By G. Winston Carter

We need not travel great distances to discover interesting things about the natural world. A closer look at our own front lawns may reveal many fascinating details of plant structure and the relationship of plants to their environments, especially if we use a hand lens!

History reveals that wild plants often come from great distances and show up eventually as part of formal gardens. Also plants that were once considered plants of the garden escape to other habitats such as a lawn. Although lawns may have generally similar plants, each lawn is a special environment (or ecosystem) which means that the physical conditions and plant and animal life present are always at least slightly different and that there are different interrelationships. Lawns with trees will attract different bird populations and other species of animals such as squirrels and various kinds of insects depending on the types of trees present. In addition, the bases of some of these trees will have special microclimates that will be especially favorable for certain types of plants.

The number of interesting plants which grow naturally on a lawn is quite long. Most, if not all, of them are considered weeds. However, much depends on your viewpoint. Ralph Waldo Emerson illustrated this point quite well in 1878 when this quotation appeared in "Fortune of the Republic": "What is a weed? A plant whose virtues have not yet been discovered."

If we look at these plants from Emerson's viewpoint, we might ask ourselves some questions, such as: How did the plant get here in the first place? Is the plant edible? Does it have medicinal qualities? What interesting adaptation does this plant have that helps it to survive? How did it get its name?

With these questions and others in mind, I will examine in more detail seven natural lawn plants so that we may discover their "virtues."

Gill-over-the-ground
Glechoma hederacea

The leaf color and trailing habit of this little mint are what gives this plant its scientific name. The generic name, Glechoma, refers to the gray-green color of the leaves and the species name, hederacea, means "resembling ivy." Its square stem, opposite leaves, and irregular flowers are all good mint-like characteristics. It has a very attractive blue flower, but unlike many mints this plant is not aromatic.

As far back as the ancient Greeks, gill-over-the-ground was well known as a medicinal herb. Today, its main claim to medicinal fame is the high vitamin C content in its leaves, which are used to make a tea.

Dandelion ***Taraxacum officinale***

The common name of this golden flower is a corruption of the French dents de lion, teeth of a lion, referring to the sharp projections at the borders of the leaves. Its blossom consists of many ray flowers. Each flower has stamens and pistils. The fruit, or blow balls, develop parthenogenetically (there is no true pollination or fertilization) since the pollen is sterile.

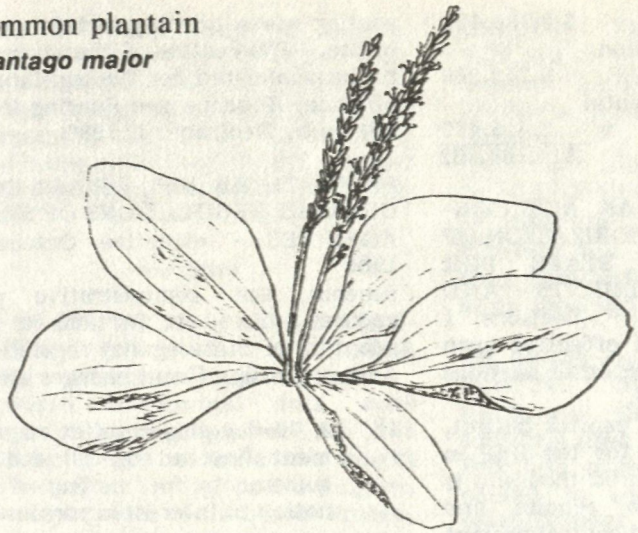
This plant has a number of interesting uses: the root is used as a substitute for coffee, the young leaves as salad greens or cooked as a potherb, while the milky juice from flower stalks was thought to remove warts. The smaller fall dandelion (Leontodon autumnalis) has ray flowers which are usually reddish underneath and this species lacks milky juice.

Canada mayflower
Maianthemum canadense

This delicate plant, sometimes called false lily of the valley, appears in the spring as widespread patches of shiny, heart-shaped leaves on a zigzag stem. The flowers are white, small, and star-shaped, arranged in terminal clusters. It frequently forms carpet-like colonies. On lawns it is usually found at the base of trees. It likes a shaded, moist environment.

Its generic name combines the Latin Maius (May) and the Greek anthemon (flower). Canadense (Canadian) refers to the locale from which the first specimen was described. However, it has a fairly wide range in eastern United States.

Common plantain
Plantago major



This persistent and widespread plant has a fascinating history. It was considered at one time a valuable herb and an edible green, as well as being useful as bird seed. It was grown in every monastery garden and also cultivated in botanical gardens. People today appear to be rediscovering some of these uses which never completely disappeared over the years.

This Eurasian plant arrived here with the early settlers, and the seeds were quickly dispersed by birds and the boots of settlers. It is often called "white man's foot" because it appeared to spring up wherever the settlers moved.

Chickweed ***Ceratium vulgatum***

Many people never realize the exquisite beauty of the chickweed flower. It is star-like with five deeply cleft white petals, giving the impression that there are ten.

There are many species of chickweed, two common ones being common chickweed (Stellaria media) and mouse-eared chickweed (Ceratium vulgatum) which is a hairy species.

Chickweeds go back in history as far as Neolithic Man. They have long been used, and still are today, as a potherb and they are also considered useful for curing rashes.

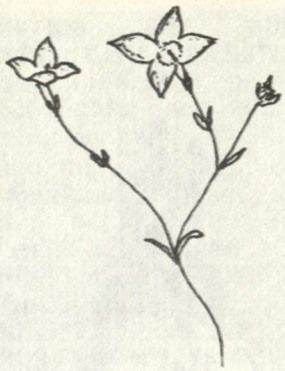
The chickweed is designed magnificently for survival, having hairs on the stem of the lower leaves and sepals which protect the plant during bad weather by folding over the young top leaves.

Birds and young chickens relish both the leaves and seeds, and this is how it received its name.

Bluets ***Houstonia coerulea***

Large colonies of bluets are often found beneath mature trees. On lawns, where they have little competition, they may form small clusters, like patches of snow. The tiny sky-blue flowers have a bright yellow center and grow from two to seven inches in height. The flowers are dimorphous, meaning that they occur in two forms. Some flowers have a tall pistil and short stamens, others tall stamens and a short pistil. Bluets seldom fertilize themselves.

This endearing and delicate little plant was named after William Houston, a Scottish botanist. The



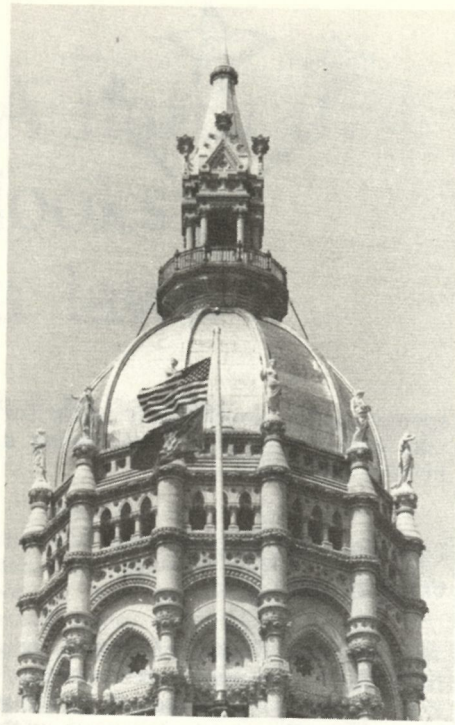
species name, coerulea, is Latin for "sky blue," the word bluet being a French diminutive.

Common speedwell
Veronica officinalis

The common name of this lovely little flower probably evolved from the charming tradition of handing fresh blue flowers to travelers with the wish "speed well." The species name means "of the shops," referring to apothecary shops and this plant's medicinal uses. It was reported to possess diuretic and astringent properties.

There are many types of speedwell, and they are usually blue. A number of species came to our shores as stowaways in grain seed and ballast. The lovely lilac-blue or blue-striped white flowers of this common prostrate plant often go unnoticed. You can look for the blossoms between June and August.

HAPPY BOTANIZING! ■



Jenny Mead

1980 Legislative Summary

By Laura Inouye, DEP Legislative Liaison

All 1980 Public and Special Acts have now been signed or vetoed by the Governor. A total of 543 bills were signed into law, and 32 were vetoed.

The following is a summary of 1980 acts of particular interest in the environmental area.

SA 80-3, HB 5203, AN ACT MAKING APPROPRIATIONS FOR THE EXPENSES OF THE STATE FOR THE FISCAL YEAR ENDING JUNE 30, 1981 - effective July 1, 1980

This is the state's operating budget for fiscal year 1980/1981. The act appropriates $14,904,082 to the DEP as follows:

Central Office	$ 2,736,423
Division of Conservation and Preservation	9,752,200
Division of Environmental Quality	2,415,459
	$14,904,082

SA 80-41, SB 739, AN ACT CONCERNING THE AUTHORIZATION OF BONDS OF THE STATE FOR CAPITAL IMPROVEMENTS AND OTHER PURPOSES - Sections 1 through 8, 63 and 64 effective upon passage, May 13, 1980; other sections effective July 1, 1980.

This is the 1980/81 capital budget, authorizing $800,000 for the DEP in section 2. Five hundred thousand is authorized for dam repairs and $300,000 for the flood control project in the Fairview Avenue area of Hamden.

SA 80-38, HB 5748, AN ACT CONCERNING AN AQUIFER ASSESSMENT IN SOUTHWESTERN CONNECTICUT - effective July 1, 1980

Appropriates $30,000 to the DEP to continue the aquifer assessment in southwestern Connecticut as mandated by Special Act 79-94.

SA 80-76, SB 324, AN ACT ESTABLISHING A TASK FORCE FOR THE PRESERVATION OF THE HERITAGE OF CONNECTICUT - effective upon passage, May 29, 1980

Establishes a 25-member task force to develop policy recommendations for the protection and preservation of historical, cultural, and natural resources. The task force will be composed of representatives of the DEP, the Commission on the Arts, the Commission on Historic Preservation, and private organizations involved with historical, cultural, and natural resource protection. A final report is due to the Governor and the General Assembly by January 1, 1982.

PA 80-426, SB 586, AN ACT ESTABLISHING A STATE GEOLOGICAL AND NATURAL HISTORY SURVEY SALES AND PUBLICATION FUND AND CONCERNING A STATE PRINTING AND DOCUMENT OFFICE - effective upon passage, June 3, 1980

Establishes a revolving fund within the DEP for the purchase and resale of U.S.G.S. maps and reports and for the reprinting of DEP survey publications.

Also requires the commissioner of administrative services to study the feasibility of establishing a self-supporting state printing and document office. The results of the study are to be submitted to the legislature's Finance, Revenue and Bonding Committee by December 1, 1980.

PA 80-471, HB 5156, AN ACT CONCERNING REGULATIONS OF STATE AGENCIES - effective October 1, 1980

Amends the administrative procedures act as it pertains to the adoption of State agency regulations. Among the significant changes are:

1) A 30-day public notice requirement (instead of 20) and requirements for mailing of the notice to interested persons.

2) Provisions for oral arguments on the request of 15 persons (presently 25) within 14 days (instead of 10) from the date of publication of the notice.

3) Requires state agencies to mail to interested persons the final wording of the proposed regulations with explanations of changes made in response to comments and suggestions rejected.

4) Requires approval of proposed regulations by the Attorney General prior to submission to the Regulations Review Committee. The Attorney General is to determine the "legal sufficiency" of the proposed regulations, meaning the absence of conflict with other state or federal laws and regulations, the Constitution of the United States, and the Constitution of the State of Connecticut and compliance with notice and hearing requirements for proposed regulations.

Division of Conservation & Preservation

Fish and Water Life

PA 80-164, HB 5609, AN ACT CONCERNING THE REGULATIONS OF COMMERCIAL AND SPORT FISHING IN THE MARINE REGION - effective January 1, 1981

Gives the DEP regulatory authority over sport and commercial fishing in the marine district in order to facil-

itate the establishment of uniform interstate, coastwide fishery regulations recommended or required by fishery management plans developed pursuant to the Fishery Conservation and Management Act of 1976 or other regional fishery management authorities.

Forestry

PA 80-251, HB 5910, AN ACT CONCERNING THE SALE OF WOOD FOR FUEL - effective October 1, 1980
Requires commercial fuel wood dealers delivering fuel wood which is sold by weight to have the weight verified by a licensed public weigher. The Department of Consumer Protection is authorized to adopt regulations to implement this act.

Licenses and Fees

PA 80-172, SB 542, AN ACT CONCERNING PARKING FEES AT STATE RECREATIONAL FACILITIES - effective October 1, 1980
Codifies the DEP's authority to issue Charter Oak Passes. Any Connecticut resident may, for a fee, obtain a pass entitling the holder to free parking on weekdays at any state recreational facility for the calendar year.

PA 80-435, HB 6051, AN ACT CONCERNING PARKING AND CAMPING PERMIT FEES IN STATE PARKS AND FORESTS - effective October 1, 1980
Requires the DEP to increase camping permit fees for Connecticut residents to 150 percent of the April 1, 1980 fees and to increase fees for non-residents to 200 percent. The increased fees are to take effect April 1, 1981. By November 1 each year, beginning in 1981, the Department is required to allocate an amount equal to at least 50 percent of the increased revenue to maintain and improve state camping facilities.

Property Management

SA80-30, SB 386, AN ACT CONCERNING THE DEDICATION OF PROPERTY IN THE LAUREL BEACH AREA OF MILFORD - effective upon passage, May 21, 1980
Requires the DEP to designate the Laurel Beach area of Milford as a natural area preserve.

Wildlife

PA 80-305, SB 540, AN ACT CONCERNING THE PENALTY FOR KILLING DEER - effective October 1, 1980
Applies a more stringent penalty to violators of deer damage permit statutes. First offenders will be fined $200 to $500 and/or imprisoned 30 days to 6 months; subsequent offenses will be subject to a fine from $200 to $1000 and/or imprisoned up to one year.

PA 80-460, SB 333, AN ACT PROHIBITING THE BREEDING AND SALE OF CERTAIN ANIMALS - effective upon passage, May 29, 1980
Prohibits possession of skunks purchased in any Connecticut retail establishment after May 1, 1979, and prohibits the breeding or sale of any skunk. Zoos, nature centers, museums, or research laboratories may be exempted on approval of the commissioner of the DEP.

Division of Environmental Quality

Air Compliance/Energy/Transportation

PA 80-359, HB 5783, AN ACT ESTABLISHING A TASK FORCE TO STUDY PUBLIC HEALTH HAZARDS OF ASBESTOS - effective upon passage, May 27, 1980
Establishes a 13-member task force to evaluate and make recommendations on alleviating public health hazards of asbestos. The task force, composed of the commissioners of the departments of Environmental Protection, Health Services, and Economic Development or their designees, and representatives of the asbestos manufacturing industry, the construction industry, physicians, and the general public, is to report its findings and recommendations to the Governor and General Assembly by January 1981.
The act also prohibits the installation of vinyl-lined water pipes containing TCE or other solvents deemed toxic by the Commissioner of Health Services. By February 15, 1981, the Commissioner of Health Services is to report to the General Assembly on the public health hazards of these pipes and recommendations for future installations.

PA 80-406, HB 5223, AN ACT CONCERNING THE PROPERTY TAX EXEMPTION FOR BUILDINGS EQUIPPED WITH A PASSIVE SOLAR SYSTEM - Section 1 effective October 1, 1980; Sections 2, 3 and 4 effective July 1, 1980
Provides for additional tax exemptions for alternative energy systems.

PA 80-434, HB 6046, AN ACT CONCERNING A PLAN TO EXEMPT VEHICLES WITH THREE OR MORE PERSONS FROM PAYING TOLLS - effective October 1, 1980
Requires the DOT to develop a plan to exempt vehicles with 3 or more persons from paying tolls; the plan may also eliminate current discount programs. By January 15, 1981, the plan is to be submitted to the Governor and the General Assembly.

PA 80-458, HB 6064, AN ACT CONCERNING MOTOR VEHICLE EMISSIONS - effective upon passage, May 29, 1980
Allows the commissioner of motor vehicles to negotiate a contract or contracts for implementation of an auto emissions inspection program, which shall begin on December 31, 1982. The act makes the State responsible for any costs which may not be covered by the inspection fee, which is still limited to $10. Also removes responsibility for vehicle repairs over $70 if the vehicle's air pollution control device is inoperative due to a manufacturing defect.
By January 1, 1981, the commissioner of motor vehicles is required to submit an inspection agreement or agreements to the clerk of the Senate and the clerk of the House of Representatives for review by a 10-member legislative committee which will have 45 days to approve or reject the agreement(s).

Hazardous Materials/Solid Waste Management

SA 80-49, HB 5322, AN ACT ESTABLISHING A SOLID WASTE MANAGEMENT TASK FORCE - effective July 1, 1980
Establishes a 15-member task force to evaluate solid waste management policies and practices and to develop recommendations for long-range solutions. An interim report is due to the legislature's Environment Committee by October 15, 1980; the final report is due January 15, 1981. The task force will be composed of members of the Environment Committee, CRRA, the Solid Waste Management Advisory Council, and representatives of the solid waste industry.

PA 80-464, HB 5610, AN ACT CONCERNING THE USE, PRODUCTION, STORAGE AND DISPOSAL OF CHEMICALS - effective upon passage, May 29, 1980
Requires any company engaged in the commercial production or mixing of hazardous substances designated by section 311 of the federal Water Pollution Control Act to provide a list of those substances to the local health director upon request within 30 days.

PA 80-472, HB 5400, AN ACT CONCERNING HAZARDOUS WASTE FACILITIES - Sections 1 and 4 through 12 effective July 1, 1981; Sections 2, 3 and 13 effective upon passage, May 30, 1980
Sections 1 and 4 through 12 of this act establish procedures and criteria which must be followed for a hazardous waste facility to obtain a certificate of public safety and necessity. Certificates are to be issued by a board which is to be established during the 1981 legislative session after an interim study of alternatives for composition of a board by a legislative committee (established by Section 3 of the act). The committee will be composed of members of the standing committees on the Environment, Planning and Development, and Government Administration and Elections.
Section 3 requires the DEP to adopt regulations to carry out the puposes of the act.
Section 13 requires the legislature's Environment Committee to study "methods for the siting of hazardous waste facilities," including the balance of state and local control over siting and operating facilities, insurance and bond requirements, incentives to municipalities to accept facilities, necessary regulations, and local participation in regulatory activities. The Environment Committee's report shall be submitted to the General Assembly by January 1, 1981.

Radiation Control

SA 80-43, HB 5109, AN ACT CONCERNING A STUDY OF HEALTH PROBLEMS IN SOUTHEASTERN CONNECTICUT - effective July 1, 1980
Appropriates $25,000 to the Department of Health Services to contract with the Health Systems Agency of Eastern Connecticut for a study comparing health problems of persons living or working in the area surrounding nuclear facilities with health problems of the general population. The results of the study are to be submitted to the General Assembly's Environment Committee by September 1, 1981.

PA 80-351, HB 5555, AN ACT CONCERNING THE IMMEDIATE REPORTING OF NUCLEAR INCIDENTS - effective upon passage, May 28, 1980
Requires the DEP to adopt regulations for the reporting of nuclear incidents and authorizes the DEP to impose civil penalties up to $25,000 for violations of reporting requirements.

Water Compliance

PA 80-15, SB 204, AN ACT CONCERNING CONTROL OF FEDERALLY OWNED SOURCES OF WATER POLLUTION - effective October 1, 1980
Allows the DEP to regulate water pollution sources owned by the federal government and adds "the state or any instrumentality of the state" to the definition of "person." These changes will bring Connecticut law into conformance with federal Clean Water Act regulations and the Resource Conservation and Recovery Act.

PA 80-103, SB 329, AN ACT CONCERNING THE SALE OF DETERGENTS -effective October 1, 1980
Allows the sale of highly concentrated detergents which exceed the statutorily prescribed phosphate concentration limit provided the recommended use level does not exceed 6 grams of phosphorus by weight.

PA 80-130, SB 164, AN ACT ADDING TO THE LIST OF CARCINOGENIC SUBSTANCES - effective October 1, 1980
Provides for any substance regulated as a carcinogen by the Secretary of Labor to be included on the list of carcinogens reportable to the DEP and the Department of Health Services (DHS). Also requires the DHS to promulgate regulations requiring the reporting of "designated human carcinogens."

Water Resources/Coastal Management

SA 80-33, SB 524, AN ACT CONCERNING THE FLOODING PROBLEMS OF THE YANTIC RIVER AND BEAVER DAM IN STRATFORD - effective July 1, 1980
Requires the DEP to study the flooding problems of the Yantic River and appropriates $25,000 to alleviate the flooding and siltation problems of Beaver Dam in Stratford.

SA 80-42, HB 5827, AN ACT CONCERNING THE WATER QUALITY OF LAKE WARAMAUG - effective July 1, 1980
Appropriates an additional $25,000 to the DEP for the Lake Waramaug water quality improvement program.

SA 80-45, HB 5313, AN ACT TO STUDY POLLUTION AND SILTATION IN COASTAL WATERS - effective July 1, 1980
Requires the DEP to conduct a study of pollution, siltation and erosion problems of Connecticut's coastal waters. The results of the study, along with recommended corrective measures and cost estimates, are to be submitted to the legislature's Environment Committee by January 1, 1982. The 1980/81 state budget includes $30,000 to implement this act.

PA 80-356, SB 530, AN ACT CONCERNING SMALL FLOOD CONTROL, TIDAL AND HURRICANE PROTECTION AND NAVIGATION PROJECTS - Section 1 effective October 1, 1980; Section 2 effective upon passage, May 28, 1980
Section 1 authorizes the DEP to utilize non-structural measures for flood control.
Section 2 amends section 22a-30(c) of the general statutes which authorizes the DEP to promulgate regulations under the tidal wetlands statutes. The act specifies that such regulations shall be consistent with coastal management laws and regulations and allow for permit coordination with other state and federal programs. The regulations are to establish criteria for evaluating tidal wetlands permit applications and may include informational material on regulated activities.

Miscellaneous

PA 80-327, SB 100, AN ACT CONCERNING MUNICIPAL AQUIFER PROTECTION - effective October 1, 1980
Authorizes local zoning commissions to consider the protection of existing and potential public surface and ground drinking water supplies in the development and amendment of the municipal plan of development and in zoning regulations. ■

208 water quality management

Assembly passes aquifer legislation

During the current session of the General Assembly, the Connecticut legislature quietly passed aquifer protection legislation endorsed and developed in part by the Connecticut 208 Program. This legislation is envisioned as playing a crucial role in securing the future water supply needed in Connecticut. It comes as the culmination of a major effort of several State agencies over the past years.

Connecticut, as a whole, has very little additional surface water supply which can be developed. Many existing surface water supplies will require elaborate and expensive treatment to comply with regulations recently established under the federal Safe Drinking Water Act. Therefore, several communities are seriously examining the feasibility of using ground water as a lower-cost alternative to the construction of expensive filtration facilities.

The Connecticut 208 Program has been working on the problem of ground water protection since 1977. One of the earliest efforts involved the mapping of the major, stratified-drift aquifers within the State.

Essentially, a major, stratified-drift aquifer is an underground layer of sand and gravel which is at least ten feet thick and saturated with water. Those capable of producing the highest yields are composed of coarse-grained material. These major aquifers will sustain pumping rates from 50 to 10,000 gallons per minute, which makes them suitable for use as municipal water supplies.

Under a cooperative agreement with the 208 Program, the United States Geological Survey (USGS) produced the stratified-drift aquifer mapping as well as single factor maps of potential sources of ground water contamination in the State. These include road salt storage areas, solid waste disposal areas, surface water quality (including sewage treatment plants, industrial discharge sites, and water quality sampling sites), built-up areas, industrial areas and ground disposal of industrial wastes, non-sewered built-up areas and septage disposal sites, proximity of gas and oil pipelines and storage facilities to major aquifers, locations of known ground water impairment, and proximity of agricultural areas to major aquifers (including manure storage areas, milk waste lagoons, and livestock, crop, fertilizer, and pesticide distribution, by county).

The USGS also produced two major reports which accompany the mapping efforts, "Major Sources of Groundwater Contamination in Connecticut" and "Effects of Selected Sources of Contamination on Groundwater Quality at Seven Sites in Connecticut." (Copies of all maps as well as both reports are available at cost from the USGS, Room 235, 135 High Street, Hartford, CT 06103.)

In contrast to public water supply wells, the average home well is sunk in a crystalline bedrock formation. Since the bedrock is fractured, enough water is usually contained in the fissures in the rock to sustain an individual, private well. The 208 Program has not attempted to deal with the protection of crystalline bedrock aquifers because virtually the entire State is underlaid with this material. Obviously, it would be impracticable to attempt to regulate land use activities over such an area.

After mapping the major aquifers, the next step involved the mapping of the recharge areas associated with each aquifer. The recharge area can be defined as the land area over and adjacent to the aquifer which drains into it. Pollutants deposited in the recharge area can easily make their way into the aquifer. Once such contamination occurs, the aquifer can be rendered unfit for use for hundreds of years.

Unfortunately, in several locations, the major aquifers have been hopelessly polluted by years of industrial activity. Because these aquifers occur primarily in river valleys, industries and major population centers were located over them in the days when water power was a prime economic consideration. However, this does not mean that all of these valuable resources have been lost. On the contrary, the stratified-drift aquifers constitute the primary source of future municipal drinking water supplies in Connecticut.

To protect these invaluable ground water resources, the Connecticut 208 Program has developed a "Guide to Groundwater and Aquifer Protection." The Guide is designed to be used in conjunction with the aforementioned aquifer and recharge area mapping; it even includes a model aquifer protection regulation which can be applied at the local level. Several communities in the State are now in the process of adopting such aquifer protection ordinances.

This is precisely the reason why the Connecticut General Assembly passed House Bill 100, An Act Concerning Municipal Aquifer Protection. This bill amends existing planning and zoning enabling legislation to empower local planning and zoning commissions to adopt regulations for the protection of existing and future drinking water supplies. Both surface and ground water are specifically referenced by the Act.

With the advent of the recently enacted municipal aquifer protection enabling legislation, it is conceivable that certain types of land use could be excluded from aquifer areas across Connecticut. These include road salt storage piles, landfills, sludge disposal areas, and industries with toxic materials and hazardous wastes. The area affected by the legislation comprises somewhat less than ten percent of the area of the State. It is important to note also that most residential development can still safely occur over such areas.

With the implementation of the aquifer protection legislation through local ordinances, communities will be taking measures to insure that a future source of drinking water will remain available for use should the need arise. In the long run, a stable ground water drinking water supply will enable Connecticut's communities to plan their growth without fear of literally running out of water.

By Joseph M. Rinaldi,
208 Public Participation Coordinator,
P.O. Box 1088, Middletown, Ct. 06457

Basin mapping means new landfill siting policy can focus on sites most suitable for waste disposal

By Ralph Lewis, Senior Environmental Analyst, Solid Waste Management Unit

Connecticut has traditionally disposed of most of its solid waste by dumping it on land. Even the most optimistic projections for source separation and recycling programs and resources recovery emphasize that disposal on the land will continue to be one of our major future methods. Solid waste disposal areas will be needed for residue disposal and as back-up disposal for all the resource recovery systems presently planned or envisioned. In addition, many areas of the State will not be served by alternative disposal facilities for quite a long time, if ever. These areas will continue to use landfilling as their primary disposal method.

Existing disposal capacity (landfill space having the required permits) will approach exhaustion by the mid 1980s. No new solid waste disposal areas have been given permits or established in Connecticut since the spring of 1978. There is a clear danger that sufficient new disposal capacity will not be developed in time to meet our future needs. This potential shortfall is recognized by the DEP which is moving on several fronts to publicize the problem and develop methods of addressing it.

At present, problems in the existing disposal site nomination process and the State's lack of a mechanism for effective siting have virtually eliminated the submission of sound siting proposals for departmental consideration. Prior to the establishment of regulatory controls on disposal area siting, unwanted or remote parcels of land were traditionally chosen for waste disposal sites. Waste disposal has historically been an extremely undesirable land use option compared to residential, commercial, industrial, or recreational development. A "developmental pecking order" relegated disposal sites to parcels which were "not wanted" for more attractive types of development. Unfortunately, the characteristics which made these parcels unsuitable for more desirable forms of development have also made them particularly unsuitable for land disposal of wastes.

The advent of regulatory control of waste disposal area siting has pushed physical site suitability to the forefront among siting decisions. Controls forbidding the establishment of new solid waste disposal areas on acreage not physically suitable for waste disposal have created a situation in which new disposal site proposals must compete for ground traditionally reserved for more "socially acceptable" forms of development.

Traditions are hard to overcome, but traditional approaches to disposal site nomination will have to be abandoned if sufficient new disposal capacity is to be developed.

At present, town officials and prospective disposal area developers nominate sites and the Department evaluates each site nominated. This system has done little to break down the "developmental pecking order." Almost all of the land that the Solid Waste Management Unit has been asked to look at is unsuitable for solid waste disposal because those who proposed it themselves felt that "it would be good for a dump because we can't do anything else with it." Adequate disposal capacity will require that the DEP begin to be asked to review proposals for development of suitable land. Sound technical guidance in site searches needs to be provided so that the prevailing bias will diminish and a higher proportion of sites with potential will be offered for consideration.

The DEP is preparing a comprehensive policy document which will elucidate departmental positions on critical siting factors and will provide a clear designation of prime search areas around the State. Connecticut will continue to embrace what is probably best called a "natural siting" policy. This essentially means that a proposal will be deemed acceptable only if it can be demonstrated that the surrounding natural system (whether it is used as the primary treatment system or as a back-up/fail-safe system) can, under worst possible conditions, accept all of the contaminant load generated by the proposed facility without degradation of receiving surface waters.

Unlined waste sites rely solely on natural processes for treatment. This type of site produces a leachate effluent which will migrate into and through the soil's saturated zone and ultimately discharge to surface waters draining the area. This

leachate plume may also degrade groundwater quality between the site and the receiving stream. Connecticut's soils cannot be counted on to fully attentuate (i.e., lessen the strength of) leachate passing through the soil and groundwater systems. Site-specific quantification of the attenuative capacity of on-site soils is difficult and of little value. Most soil-leachate reactions are reversible, and conservative ions and refractory substances are known to pass readily through all types and thicknesses of soil; in addition, Connecticut soils generally exhibit a lack of the major soil constituents (clay minerals and organic matter) involved in leachate attenuation.

Sound regulatory analysis of proposed leachate discharges dictates a worst-case approach, which assumes that all leachate that is generated by a proposed facility and that enters the underlying groundwater will eventually enter receiving surface waters. Under low-flow conditions receiving surface waters must be able to accept the total discharge without degradation. The possible mitigating effects of soil attenuation are not accounted for in the Department's review, and it is therefore a relatively conservative analysis in terms of potential impact.

Facilities which rely on leachate containment, collection, and pretreatment prior to discharge will be given consideration if they are sited so as to provide adequate "back-up" natural attenuation capability. Back-up natural treatment capacities sufficient to handle complete containment failure (equivalent to worst-case impact analysis) are deemed necessary because:

1. The Department knows of no effective, reliable leachate treatment system which does not ultimately rely on surface water dilution as its primary or "back-up" treatment mechanism.

2. Long-term liner integrity has not been adequately demonstrated.

Site proposals which meet worst-case dilution criteria and incorporate additional characteristics such as thick deposits of fine grained, moderately permeable host soil; easily definable hydrogeologic conditions; excess on-site cover material; adequate depth to groundwater and bedrock; good access; and compatible surrounding groundwater use have the best chance of gaining approval.

The "natural siting philosophy" is predicated on a thorough understanding of the site-specific hydrogeologic parameters which control contaminant migration in the groundwater system. It assumes that leachate will be generated by deposited solid wastes and that if leachate is accidentally (by containment failure) or purposely discharged (from unlined sites) at an approved facility it will enter the underlying groundwaters and move as a contaminated plume toward the receiving surface water body. This movement is anticipated in the facility design which essentially uses the soil and the ground and surface water systems beneath and downgradient of the site as a natural leachate treatment system requiring no extraordinary means to achieve acceptable leachate attenuation even under worst-case conditions.

Design and operational specifications for all land disposal facilities are expected to incorporate the best practical current engineering approaches to reduce surface water impacts primarily through the minimization of leachate generation.

The Department plans to assume a more aggressive role in site nomination by identifying natural drainage basins within the State which are known to have physical qualities most acceptable for land disposal. The geology of Connecticut facilitates this approach because, with few exceptions, ground and surface water divides throughout the State are topographically controlled and coincident. This permits the definition and mapping of discrete interrelated ground and surface water basins. The Department is taking advantage of this and adopting groundwater quality standards which can be applied to each basin. Successful adoption and statewide application of these criteria will produce a powerful land-use planning tool.

For the first time, the known physical capabilities of Connecticut's hydrologic system will be graphically presented, and the distribution of particular basin characteristics will be evident. Various agencies will be able to use this information as they develop strategies designed to properly utilize and protect the State's land and water resources. Appropriate ground water criteria designations can be used to protect basins which are best suited to uses such as water supply (aquifer protection) and to identify basins which have physical characteristics appropriate for land disposal.

A statewide disposal area search capacity will evolve as the Department develops a comprehensive siting program based on surface and ground water quality standards and criteria. When basin mapping, guidance documents, and water quality standards are completed, it will be possible to focus site searches on areas which are most likely to prove suitable for solid waste disposal uses; to exclude unsuitable areas from consideration; and to greatly enhance the Department's ability to ensure that future site development will be accomplished with proper regional and statewide solid waste management goals in mind.

Although this technical effort will go a long way to improve the disposal site nomination process and clarify the extremely limited site development potential which exists in the State, it will not in itself ensure adequate disposal capacity. Political, social, and economic impediments to site development are presently the major cause of anticipated disposal capacity shortfalls. Completion of the drainage basin mapping and criteria designations will help bring about the realization that most of this State is geologically unsuited for waste disposal. Not every municipality is going to be able to solve its own disposal problem because development of new land disposal facilities is not feasible in many areas. Strong, effective statewide solid waste management is essential to assure adequate capacity development. As long as local control attitudes such as those expressed in Public Act 78-67 dominate the siting of new facilities, adequate disposal capacity for each town's waste will never be developed. A politically acceptable mechanism which will ensure that technically sound sites can and will be developed is imperative. The Department, therefore, will continue to work with the Legislature and other policy makers to promote and implement a statewide approach to solid waste management in Connecticut. ■

New standards to include ground water policy, goals

By Tess Gutowski, Water Compliance Unit

Connecticut's Water Compliance Unit is at work updating the State's water quality standards. Required by both federal and State law, these standards must be revised every three years.

The purpose of the standards is to provide a clear and objective statement of existing and projected water quality and our general program to improve the water resources of the State. The standards are also used to qualify the State and its municipalities for available federal grants for water pollution control.

It is the statutory mandate that these standards shall protect the public health and welfare; promote the economic development of the State; preserve and enhance the quality of the State's waters for present and future use for public water supplies, propagation of fish and aquatic life and wildlife, recreational purposes, agriculture, industrial, and other uses.

Revised for the third time since 1970, the water quality standards contain far-reaching policy statements concerning the State's surface waters and ground waters. The standards are notable because Connecticut is one of only several states whose standards have been federally approved after each revision. In the past, the standards have addressed surface water quality only. The proposed 1980 revisions include, for

Table I. GROUND WATER QUALITY CLASSIFICATIONS

CLASSIFICATION	USE	SCALE	DISCHARGES ALLOWED TO GROUND
GAA	Public & private drinking water supplies without treatment	a) Entire drainage area of surface reservoirs b) 1000' radius around public wells	a) Treated backwash from drinking water treatment facilities b) Domestic septic systems, acceptable agricultural practices c) Minor cooling and clean water
GA	Private drinking water supplies without treatment	Entire drainage areas or subsets thereof	a) All the above b) Septage c) Animal or human wastes d) Substances of natural origin or materials easily biodegradable
GB	May not be suitable for potable use unless treated due to existing or past land uses	Entire drainage basins or subsets thereof	a) All the above b) Certain industrial process waters providing no violation of standards of adjacent surface water
GC	May be suitable for certain waste disposal practices because past land use or hydrogeologic conditions render these ground waters more suitable for receiving permitted discharges than development for public or private water supply	Subsets of drainage basins	a) All the above b) Local or regional liquid and solid wastes from municipalities and industries providing no violation of standards of adjacent surface water
	SPECIAL CONSIDERATIONS:		
	Featured by unique hydrogeologic conditions which:		1) Favor maximum renovation of effluent 2) Diminish areas' value for water supply withdrawal 3) Close proximity to major, existing waste receiving surface water

the first time, policies and goals for ground water quality protection.

Connecticut's surface water policy is as follows: "to restore or maintain the surface waters of the State to a quality consistent with their use for the protection and propagation of fish, shellfish and wildlife including breeding, feeding and nursery grounds, and with their use for recreation." Standards for surface water require the achievement of Class B as a minimum goal (swimmable-fishable waters).

The proposed 1980 ground water policy would: "restore or maintain the quality of the ground water to a quality consistent with its use for drinking without treatment." In keeping with this policy, all ground waters shall be restored to the extent possible to a quality consistent with Class GA. However, restoration of ground water to Class GA shall not be sought when:

A) The ground water is in a zone of influence of a permitted discharge.

B) The ground water is designated as Class GB; unless there is a demonstrated need to restore ground waters to a Class GA designation or where it can be demonstrated to the Commissioner that restoration to Class GA can be reasonably achieved.

C) The ground water area is designated Class GC.

The zone of influence of a discharge may be described as the soil or water area needed to allow the treatment of effluent by soils or the mixing of effluent with ground or surface waters. The zone of effluence is used by the Commissioner in regulating discharges to the waters of the State.

Table I outlines the general ground water quality classifications. The addition of ground water quality standards is an attempt to integrate the relationships between ground and surface water quality with the needs for water supply and waste disposal.

All of the State's surface and ground waters will be designated with a water class. Table II shows surface and marine water quality classifications. Nine physical and chemical parameters are defined for each water quality classification. Some of these parameters include dissolved oxygen, pH, allowable temperature increase, and coliform bacteria counts.

Throughout the summer of 1980, the Water Compliance Unit will be conducting public hearings on water quality classifications. The DEP urges all of Connecticut's citizens to become familiar with the proposed standards and their effects and to participate in the public hearings. Announcements of these hearings will appear in newspapers and the Citizen's Bulletin.

Copies of Connecticut's proposed water quality standards and criteria may be obtained from Robert Smith, Assistant Director, Water Compliance Unit, State Office Building, 165 Capitol Avenue, Hartford, CT 06115. ■

Table II. SURFACE AND MARINE WATER QUALITY CLASSIFICATIONS

CLASSIFICATION	CHARACTERISTICS
Inland Waters	
AA	Existing or proposed drinking water supply impoundments and tributary surface waters.
A	May be suitable for drinking water supply and/or bathing; suitable for all other water uses; character uniformly excellent; may be subject to absolute restrictions on the discharge of pollutants.
B	Suitable for bathing, other recreational purposes, agricultural uses, certain industrial processes and cooling; excellent fish and wildlife habitat; good aesthetic value.
C	Suitable for certain fish and wildlife habitat, recreational boating, certain industrial processes and cooling; good aesthetic value.
D	May be suitable for bathing or other recreational purposes, certain fish and wildlife habitat, certain industrial processes and cooling; may have good aesthetic value. Present conditions, however, severely inhibit or preclude one or more of the above uses.
Coastal and Marine Waters	
SA	Suitable for all sea water uses including shellfish harvesting for direct human consumption, bathing, and other water contact sports; may be subject to absolute restrictions on the discharge of pollutants.
SB	Suitable for bathing, other recreational purposes, industrial cooling and shellfish harvesting for human consumption after depuration; excellent fish and wildlife habitat; good aesthetic value.
SC	Suitable for fish, shellfish and wildlife habitat; suitable for recreational boating and industrial cooling; good aesthetic value.
SD	May be suitable for bathing or other recreational purposes, fish and wildlife habitat and industrial cooling; may have good aesthetic value. Present conditions, however, severely inhibit or preclude one or more of the above uses.

For the fourth consecutive year, Governor Ella Grasso proclaimed June as Recreation and Parks Month in Connnecticut. Recognized at both the national and state level, the purpose of Recreation and Parks Month is to encourage citizen recreation activities and to recognize the services of park and recreation professionals. Celebrations throughout Connecticut ranged from outdoor concerts to bicycle marathons.

Participating in the June 5 presentation of the official proclamation are, left to right, Harold Barenz, Director of Parks and Recreation for the Town of Bloomfield; Governor Grasso; Suzanne Harsanyi, President of The Connecticut Recreation and Park Association; and Robert Dlugolenski of the State Department of Environmental Protection's Park and Recreation Advisory Service.

This month, inside, see the special article, "A Naturalist Looks at a Lawn," by columnist G. Winston Carter. "Trailside Botanizing" will be back here next month.

DEP Citizens' Bulletin

State of Connecticut
Department of Environmental Protection
State Office Building
Hartford, Connecticut 06115

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DEP Citizens' Bulletin Supplement

Special Events

August 28, 1980: 10 a.m.
Sherwood Island State Park: meet near East Beach first aid station "Of Crabs, Clams, and Cordgrass" will be a salt marsh walk led by DEP staff members.

August 31, 1980: 1:30 p.m.
Fort Griswold State Park, Groton
The only major Revolutionary War battle to take place in Connecticut will be re-enacted at Fort Griswold State Park. The Battle of Groton Heights -- fought on September 6, 1781 -- was a disastrous defeat for the 150 Colonists who were attacked by 800 British troops led by Benedict Arnold. During the battle, which lasted only 40 minutes, 88 Colonists were killed, 35 wounded, and 28 taken prisoner. At one point, the American commander, Colonel William Ledyard, surrendered to the British, only to be killed, according to some sources, with his own sword.

An annual event since 1975, the re-enactment attracts approximately three to five thousand spectators a year. Thirty units from several New England states participate, and the number of participants range from 250 to 500.

The park will open at 10:00 with crafts displays, military demonstrations, bagpipes, and a fife and drum parade. After the re-enactment, a memorial service will be held. Rain date for the re-enactment is Monday, September 1.

Public Hearings

State/EPA Agreement

Connecticut and the Federal Environmental Protection Agency (EPA) have begun the process of negotiating the State's State/EPA Agreement. The agreement defines environmental priorities for several purposes.

The agreement focuses management attention on the accomplishment of major environmental objectives. The document reflects important decisions on priorities, timing, responsibilities, and allocation of funds. It acts as an information document useful to the EPA, the State, area-wide agencies, local governments, and interested publics.

Citizen input helps in the selection of priorities related to four federal environmental laws:

* the Clean Air Act
* the Clean Water Act
* the Safe Drinking Water Act
* the Resource Conservation and Recovery Act (solid/hazardous waste management)

Written comments expressing your concerns about water pollution control, air pollution control, solid waste management, the control of hazardous wastes, water supply protection, and oil spill prevention are needed by the State. Comments may be mailed to:' State/EPA Agreement, Robert Smith, Assistant Director, Water Compliance Unit--DEP, State Office Building, 165 Capitol Avenue, Hartford, CT 06115.

The public is invited to participate at:

Public Hearing - August 19th, 1980; 10:00 a.m.
Room 4½, State Capitol, Capitol Avenue, Hartford

For further information about the State/EPA Agreement, please contact: Tess Gutowski, Water Compliance Unit, 566-2588.

*Note: The hearing record will be held open for written comments until August 19th, 1980.

July 29, 1980; 7:30 p.m.
Upstairs auditorium, Town Hall, Elm St., Stonington
To consider application of Federal Railroad Adm., Northeast Corridor Project, to replace railroad bridge across the Mystic River with swing span bridge and build a new bridge across the mouth of Bennet's Cove. Realignment of bridge will require filling of 0.7 acres of tidal wetlands.

July 30, 1980; 10 a.m.
Rm. 161, State Office Bldg., Hartford
To consider application of Conn. Dept. of Transportation to place and grade earth fill for the enlargement of a commuter parking lot in inland wetlands at Rt. 123 and Rt. 15 in Norwalk.

July 30, 1980; 10 a.m.
Rm. 221, State Office Bldg., Hartford
To consider application of Ware Chemical Corp. to discharge 3,000 gallons per day of pretreated equipment washdown water to Stratford's sanitary sewerage system.

July 31, 1980; 10 a.m.
Rm. 221, State Office Bldg., Hartford
To consider application of Michael Mehigen of Oxford to discharge 4,800 gallons per day of non-contact heating/cooling water from a geothermal heat pump to an unnamed tributary to the Little River.

Permits Issued

Water Compliance

1/24/80: Hartford Electric Light Company, Middletown Station
To discharge to the Connecticut River cooling Water Discharge including once-through cooling water, hydrogen coolant, cooling tower blowdown, and closed cooling system heat exchanger coolant, intermittent area runoff and cooling tower drainage, equipment cooling water, storage tank overflows and drains, boiler seal water, and yard drains, roof drains, traveling screen wash water discharge, intermittent hillside runoff, oil dock steam trap drips, intermittent yard surface drains, circulating water inlet anti-icing flow, anti-trash spray, screen house roof and sump drains, surface and subsurface area drains,

overflow from sand filter backwash settling basin, and treatment facility discharge. Conditions.

1/24/80: Connecticut Light and Power Company, Devon Station
To discharge to the Housatonic River combined discharge (including once-through cooling water, and roof, yard and equipment cooling drains) and treatment facility discharge, traveling screen wash, non-contact cooling water, and road, roof and yard drains, scale house sump discharge, receiving hopper floor drains, receiving hopper heating steam drains, yard drains from north transformer area and south tank farm dike surface drains, yard drains from north transformer area, south tank farm dike surface drains, coal area yard drains, oil heating steam trap drains, fuel receiving station dike drains, oil shanty steam blowoff, steam tracing drains, fuel receiving area dike drains, oil line steam trace free flow, effluent from oil tank dike drain and surface drainage from regraded areas, effluent from oil tank dike drains, and surface drainage. Conditions.

1/24/80: Skinner Valve Division, Honeywell, Inc., New Britain
To discharge to a tributary to Willow Brook an average daily flow of no more than 60,000 gallons per day of wastewaters. Conditions.

1/24/80: Sargent and Company, New Haven
To discharge to New Haven Harbor an average daily flow of no more than 200 gallons per minute of wastewaters. Conditions.

1/25/80: Connecticut Yankee Atomic Power Company, Haddam
To discharge to the Connecticut River an average daily flow of no more than 576,000,000 gallons of wastewaters including test tank discharge, non-radioactive steam generator blowdown tank discharge, secondary side leakage and floor drains, water treatment waste liquid tank discharge and treated water from the floor drain system, Nash vacuum pump seal water, transformer cooling systems drains, gland steam exhaust condenser drains, hot well drains, feedwater heater drains and roof drain water, plus screen washwater discharge to a maximum daily flow of 1,728,000 gallons per day. Conditions.

3/31/80: City of Milford, Town Meadows Wastewater Treatment Facility
To discharge to the Wepawaug River an average daily flow of 1,200,000 gallons per day of wastewaters. Conditions.

3/31/80: City of Shelton
To discharge to the Housatonic River an average daily flow of 2,575,000 gallons per day of wastewaters. Conditions.

3/31/80: Town of Branford
To discharge to Branford Harbor an average daily flow of 1,500,000 gallons per day of wastewaters. Conditions.

3/31/80: City of New Haven
To discharge to New Haven Harbor an average daily flow of 40,000,000 gallons per day of wastewaters. Conditions.

3/31/80: New England Chrome Plating Company, East Hartford
To discharge to the Hockanum River one batch per day -- average flow per batch of 1,350 gallons of wastewaters. Conditions.

4/18/80: Town of Seymour
To discharge to the Naugatuck River an average daily flow of 1,000,000 gallons per day of wastewaters plus system overflows and bypasses. Conditions.

4/18/80: Plasticrete Block & Supply Corporation, North Haven
To discharge to the Quinnipiac River an average daily flow of 21,600 gallons per day of steam condensate and boiler blowdown. Conditions.

4/18/80: ABA Tool and Die Co., Inc., Manchester
To discharge non-contact cooling water to the Hockanum River at an average daily flow of 50,000 gallons per day. Conditions.

4/18/80: Pressure Pak, Inc., East Hampton
To discharge to Pocotopaug Creek an average daily flow of 2,880 gallons per day of non-contact cooling water. Conditions.

4/18/80: Putnam - Herzl Finishing Co., Inc., Putnam
To discharge 26,500 gallons per day of boiler blowdown and non-contact cooling water to the Quinebaug River. Conditions.

4/18/80: The Plastic Wire & Cable Corporation, Moncville
To discharge to an unnamed stream tributary to Stony Brook an average daily flow of 64,800 gallons per day of non-contact cooling water. Conditions.

4/18/80: Rogers Corporation, Rogers
To discharge to the Quinebaug River an average daily flow of 750,000 gallons per day of non-contact cooling water; and to Goodyear Brook and average daily flow of 20,000 gallons per day of non-contact cooling water. Conditions.

4/18/80: Dettra Flas Company, Inc., Sirtex Printing Division, Oaks, Pennsylvania
To discharge to the Mystic River in Stonington an average daily flow of 25 gallons per day of boiler blowdown. Conditions.

4/18/80: Schwanda Plastics, Inc., Staffordville
To discharge to Furnace Brook an average daily flow of 2,000 gallons per day of non-contact cooling water. Conditions.

4/18/80: The Deran Confectionary Co., Inc., Cambridge, Massachusetts
To discharge to the French River in Thompson an average daily flow of 87,000 gallons per day of non-contact cooling water. Conditions.

4/18/80: Rogers Corporation, Manchester
To discharge to Lydall Brook an average daily flow of 380,000 gallons per day of non-contact cooling water. Conditions.

4/18/80: Robertson Paper Box Company, Inc., Montville
To discharge to the Oxoboxo River an average daily flow (summer) of 275,000 gallons per day and an average daily flow (winter) of 175,000 gallons per day of non-contact cooling waters. Conditions.